

What is claimed is:

- 1 1. A method comprising:
 - 2 releasing a predetermined holding force between a mask and platform; and
 - 3 providing a temperature differential between the mask and the platform to
 - 4 facilitate separation of the mask and the platform.
- 1 2. The method of claim 1, wherein the predetermined holding force comprises an
 - 2 electrostatic force.
- 1 3. The method of claim 2, wherein the electrostatic force comprises a voltage
 - 2 differential.
- 1 4. The method of claim 1, wherein the mask and the platform comprises a mask
 - 2 and a mask platform compatible with extreme ultraviolet (EUV) radiation lithography.
- 1 5. The method of claim 4, wherein the EUV radiation lithography comprises a
 - 2 lithography method having wavelengths of radiation in a range of about 11-14
 - 3 nanometers.
- 1 6. The method of claim 4, wherein the mask comprises a mask having a coating to
 - 2 facilitate substantial and stable holding forces.

1 7. The method of claim 6, wherein the coating comprises an electrically conductive
2 coating.

1 8. The method of claim 7, wherein the electrically conductive coating comprises
2 chromium (Cr).

1 9. The method of claim 1, wherein providing the temperature differential comprises
2 providing a low temperature gas at an interface between the mask and the platform.

1 10. The method of claim 1, wherein providing the temperature differential comprises
2 providing a current to a Peltier device included in the mask platform.

1 11. The method of claim 1, wherein providing the temperature differential comprises
2 providing a material through one or more channels within the mask platform.

1 12. The method of claim 11, wherein the one or more channels comprises at least
2 one of one or more channels fully enclosed within the mask platform.

1 13. The method of claim 1, wherein providing the temperature differential comprises
2 providing a material through one or more pathways, the one or more pathways passing
3 through the mask platform and extending into an interface between the mask and the
4 mask platform.

- 1 14. The method of claim 1, wherein the mask comprises a reflective mask.
- 1 15. The method of claim 14, wherein the mask further comprises a mask having a
2 silicon substrate upon which are multilayers of silicon and molybdenum.
- 1 16. An apparatus comprising:
2 a mask platform;
3 a mask coupled to the mask platform, the coupled mask and the mask platform
4 forming an interface between the mask and the mask platform; and
5 a temperature differential device, the temperature differential device disposed to
6 provide a temperature differential at the interface to facilitate separation between the
7 mask and the mask platform.
- 1 17. The apparatus of claim 16, wherein the mask platform comprises an electrostatic
2 mask platform.
- 1 18. The apparatus of claim 16, wherein the mask platform comprises a mask
2 platform compatible with extreme ultraviolet (EUV) radiation lithography.
- 1 19. The apparatus of claim 18, wherein the mask comprises a mask compatible with
2 extreme ultraviolet (EUV) radiation lithography.

1 20. The apparatus of claim 19, wherein the mask comprises a mask having a coating
2 to facilitate absorption of the EUV radiation.

1 21. The apparatus of claim 20, wherein the coating includes at least one of titanium
2 nitride and tantalum nitride.

1 22. The apparatus of claim 19, wherein the mask comprises a mask having a coating
2 to coating to facilitate substantial and stable holding forces.

1 23. The apparatus of claim 22, wherein the coating comprises an electrically
2 conductive coating.

1 24. The apparatus of claim 23, wherein the electrically conductive coating comprises
2 chromium (Cr).

1 25. The apparatus of claim 16, wherein the temperature differential device comprises
2 a nozzle.

1 26. The apparatus of claim 16, wherein the temperature differential device comprises
2 a Peltier device disposed on the mask platform.

1 27. The apparatus of claim 16, wherein the temperature differential device comprises
2 one or more channels disposed within the mask platform.

1 28. The apparatus of claim 27, wherein the one or more channels comprises one or
2 more channels fully enclosed within the mask platform.

1 29. The apparatus of claim 27, wherein the one or more channels comprises one or
2 more channels coupled to a circulation device.

1 30. The apparatus of claim 16, wherein the temperature differential device comprises
2 one or more pathways, the one or more pathways passing through the mask platform
3 and extending into the interface.

1 31. The apparatus of claim 16, wherein the mask comprises a reflective mask.

1 32. The apparatus of claim 16, wherein the mask comprises a silicon substrate upon
2 which are multilayers of silicon and molybdenum.